

RECEIVED

FEB 11 2014

Superfund Section

ERM NC, Inc.
Ballantyne One
15720 John J Delaney Drive
Suite 120
Charlotte, NC 28277
(704) 541-8345
(704) 624-7928 (fax)



February 7, 2014

Mr. Matthew Aufman
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646
matt.aufman@ncdenr.gov

Subject: Vapor Intrusion Assessment Work Plan
Engineered Controls International, LLC (ECI)
100 Rego Drive
Elon, Alamance County, North Carolina
Site ID No.NONCD0002904

Dear Mr. Aufman:

On behalf of Engineered Controls International, LLC (ECI), ERM NC, Inc. (ERM) is transmitting this Vapor Intrusion Assessment Work Plan for the facility in Elon, North Carolina. The Work Plan describes the proposed next step of a vapor intrusion assessment at the facility. As discussed during our telephone conversation of February 5, this work plan is being submitted in advance of the full Remedial Investigation (RI) Work Plan in order to expedite vapor intrusion sampling activities so that the sampling can be conducted during the current cold weather season. A full RI Work Plan will be submitted at a later date.

This document has been prepared in accordance with the Administrative Agreement (AA) for a voluntary Registered Environmental Consultant (REC) directed assessment and remedial action, Docket Number 13-SF-367, between the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management and ECI. Certification statements are attached.

Background

The vapor intrusion assessment of the main onsite building began ([Figure 1](#)) when a previous consultant (GaiaTech) collected five soil gas samples inside the building at a depth of 2.5 to 3 feet below the ground surface (bgs) on November 15, 2012. The samples were collected near the former TCE degreaser area and wastewater treatment area ([Figure 2](#)). Several compounds were detected above the NCDENR Inactive Hazardous Sites Branch (IHSB) soil gas screening levels with trichloroethylene (TCE) as the primary compound of concern (COC). GaiaTech followed up the soil gas sampling with two rounds of indoor air sampling on February 6, 2013 and March 14, 2013. Five indoor air

samples and one outdoor air sample were collected during each round of sampling. Four of the indoor air samples were collected in the open warehouse/manufacturing portion of the building and one sample was collected in the office space portion of the building. The February 2013 sampling results indicated various volatile organic compounds (VOC) including TCE were detected between the collective cancer risk screening values of $1.0\text{E-}06$ and $1.0\text{E-}04$ and within a Hazard Index of 1. Per the IHSB vapor intrusion guidance document, a second sampling event, mimicking the February 2013 sampling event, was conducted in March 2013. The indoor air concentrations increased by approximately two orders of magnitude from February 2013 to March 2013. TCE was detected above the collective cancer risk screening value of $1.0\text{E-}04$ or above the Hazard Index of 1 at select locations during the March 2013 sampling event. Per the IHSB vapor intrusion guidance document, abatement of vapor intrusion is recommended when the $1.0\text{E-}04$ screening value is exceeded. However, because the results of the indoor air sampling events were inconsistent, a chemical use inventory and an additional indoor air sampling event are needed to evaluate the source and confirm the concentrations of the VOCs detected in indoor air.

Scope of Work

Chemical Use Inventory

An inventory of chemicals used onsite will be performed to determine if any of the VOCs detected during the vapor intrusion assessments are in use at the facility. The chemical inventory should provide an additional line of evidence to determine of the source of VOCs detected in indoor air.

Indoor Air Sampling Event

ERM proposes to conduct an indoor air vapor intrusion assessment that mimics the February and March 2013 sampling events to verify the VOC concentrations in indoor air in the main onsite building. Indoor air samples will be collected in approximately the same locations as the February and March 2013 sampling events ([Figure 2](#)). Each sample will be collected in 6-liter, laboratory certified, SUMMA® canisters for an eight hour sample period. The canisters will be placed in the breathing zone approximately four to six feet above the ground surface. One sample will be collected in the office area, four samples will be collected in the manufacturing/warehouse area, and one outdoor air sample will be collected upwind of the building. The outdoor air sample will be started approximately one hour prior to the indoor air samples. The vacuum gauge on each canister will be monitored periodically to confirm

that the canisters are operating properly. At the conclusion of the test, the canisters will be shipped under chain of custody to ConTest Laboratories in East Longmeadow, Massachusetts and analyzed for VOCs by EPA Method TO-15.

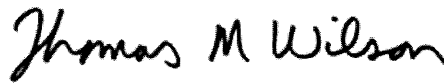
The results of the proposed vapor intrusion assessment will be reported in the RI Work Plan.

If you have any questions or comments regarding this project, please contact me at (919) 233-4501.

Sincerely,



Lane Dorman
Project Manager



Thomas Wilson, P.G., RSM
Principal

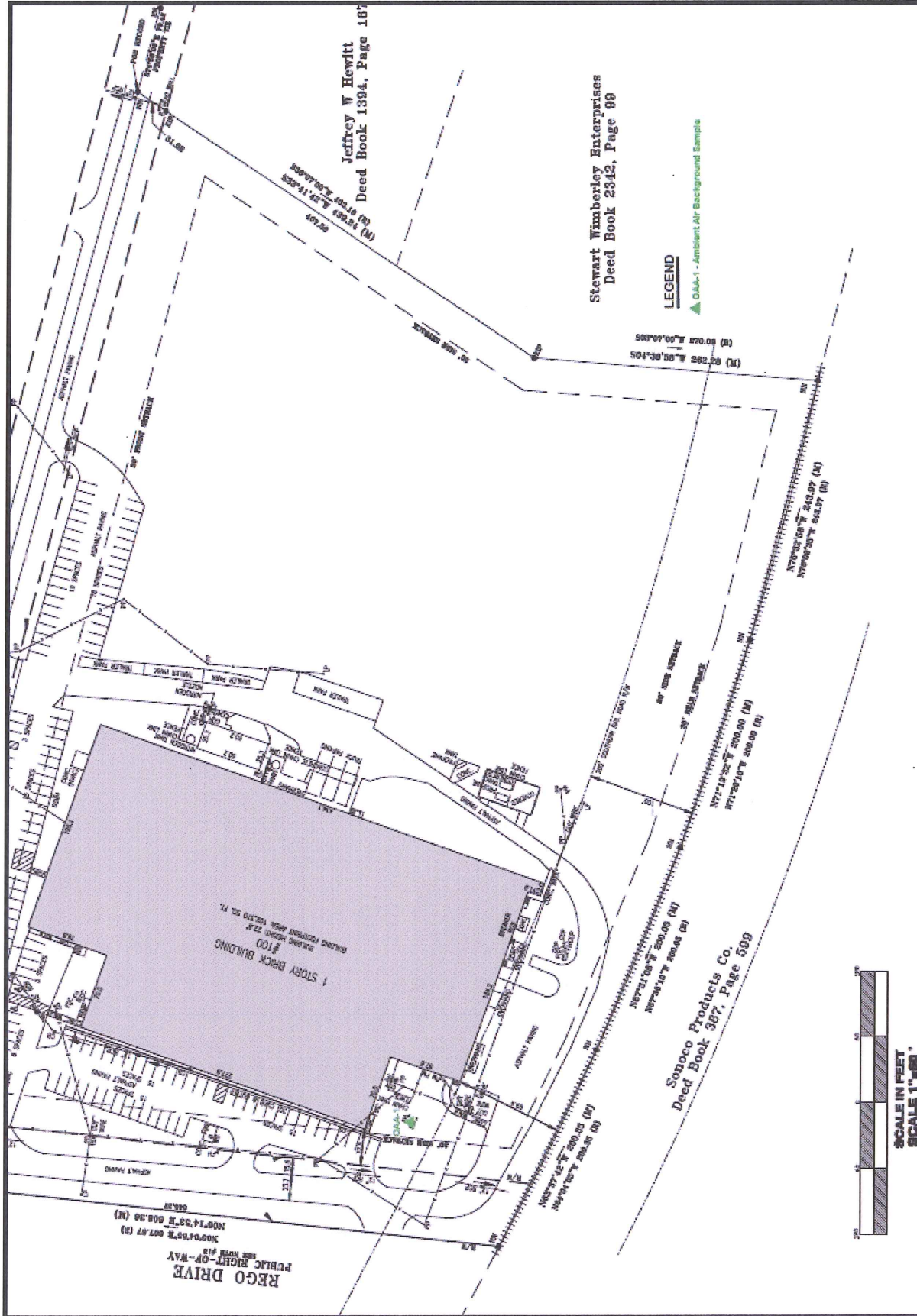
Cc: Jimmy McCandies - ECI
Timothy Crater - ECI
Peter McGrath - Moore & Van Allen

Project file

Attachments:

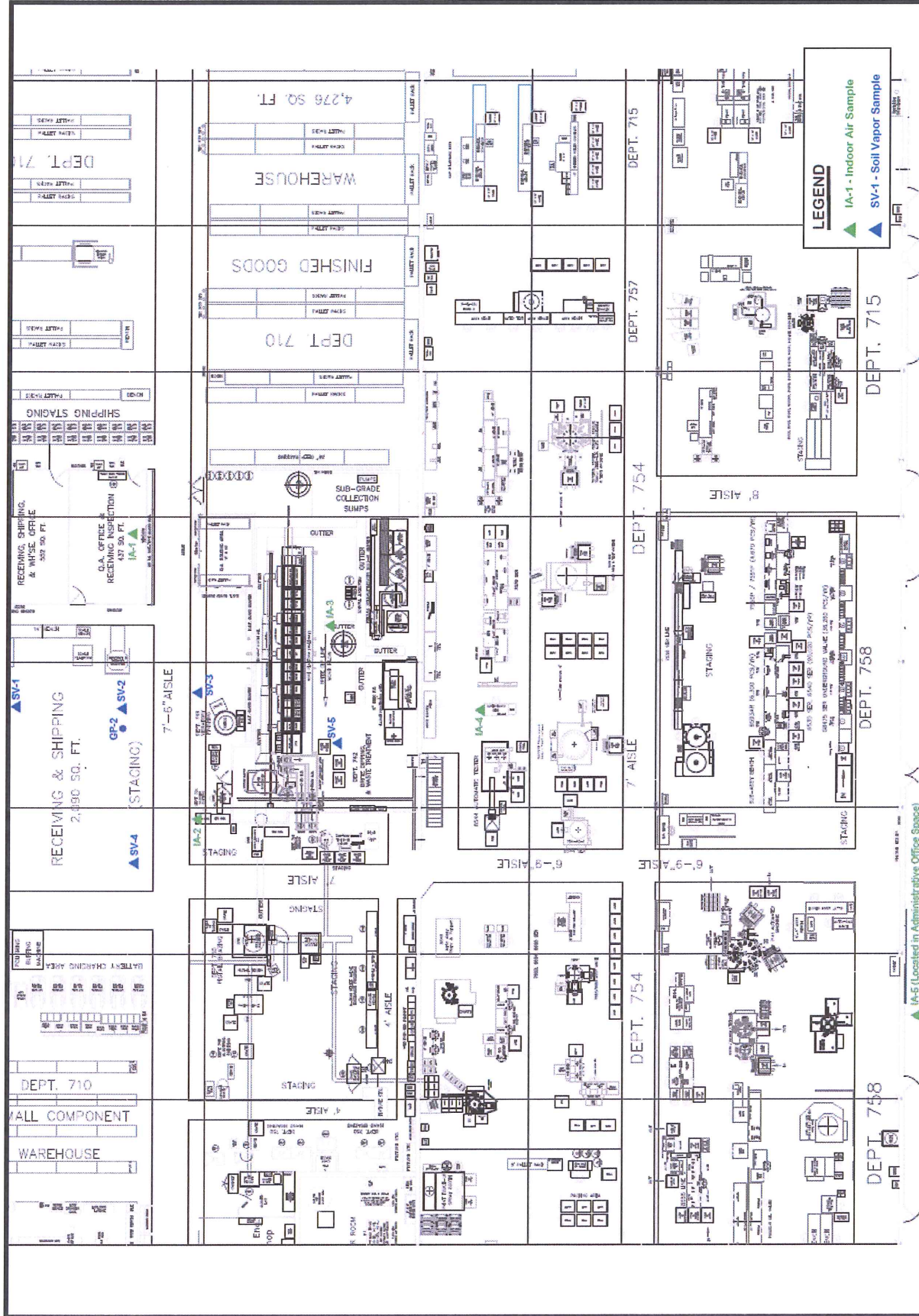
Figure 1 - Site Layout Map
Figure 2 - Interior Sample Locations Map
Registered Site Manager Document Certification Statement
Remediating Party Document Certification Statement

Figures



SITE LAYOUT MAP
Engineered Controls International, LLC
100 Rego Drive
Elon, North Carolina





Interior Sample Locations Map
 Engineered Controls International, LLC
 100 Rego Drive
 Elon, North Carolina

Figure 2



Certification Statements

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 2 OF 2

IHSB SITE NAME Engineered Controls InternationalDocket No. 13-SF-367

DATE & NAME OF DOCUMENT

2/7/14Vapor Intrusion Work PlanTYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

REGISTERED SITE MANAGER CERTIFICATION OF SIGNATURES

As the Registered Environmental Consultant for the Site for which this filing is made, I certify that the signatures included herewith are genuine and authentic original handwritten signatures and/or true, accurate, and complete copies of the genuine and authentic original handwritten signatures of the persons who purport to sign for this filing. I further certify that I have collected through reliable means the originals and/or copies of said signatures from the persons authorized to sign for this filing who, in fact, signed the originals thereof. Those persons and I understand and agree that any copies of signatures have the same legally binding effect as original handwritten signatures, and I certify that any person for whom I am submitting a copy of their signature has provided me with their express consent to submit said copy. Additionally, I certify that I am authorized to attest to the genuineness and authenticity of the signatures, both originals and any copies, being submitted herewith and that by signing below, I do in fact attest to the genuineness and authenticity of all the signatures, both originals and copies, being submitted for this filing.

Tom Wilson

Name of Registered Site Manager


 Signature of Registered Site Manager

2-7-2014
 Date

REGISTERED SITE MANAGER DOCUMENT CERTIFICATION STATEMENT (.0306(b)(1))

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act N.C.G.S. 130A-310, et seq, and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Tom Wilson
 Name of Registered Site Manager


 Signature of Registered Site Manager

2-7-2014
 Date

NOTARIZATION

North Carolina (Enter State)Mecklenburg COUNTYI, Debra C Pressley, a Notary Public of said County and State, do hereby certify thatThomas M Wilson did personally appear and sign before me this day, produced proper

identification in the form of NC DL, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 7 day of February, 2014.

 Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 10/27/2017
 DEBRA C PRESSLEY
 Notary Public
 North Carolina
 Union County

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 1 OF 2

IHSB SITE NAME Engineered Controls International

DATE & NAME OF DOCUMENT 2/7/2014 - Vapor Intrusion Assessment Work Plan

TYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

REMEDIATING PARTY DOCUMENT CERTIFICATION STATEMENT (.0306(B)(2))

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Jimmy McCandies

Name of Remediating Party

Jimmy McCandies
Signature of Remediating Party

02/07/14
Date

NOTARIZATION

North Carolina (Enter State)

Guilford COUNTY

I, C. Marie Burns, a Notary Public of said County and State, do hereby certify that Jimmy McCandies did personally appear and sign before me this day, produced proper identification in the form of NC Driver's Lic., was duly sworn or affirmed, and declared that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is true and accurate, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal this 7th day of February, 2014.

C. Marie Burns
Notary Public (signature)

(OFFICIAL SEAL)

C. MARIE BURNS
NOTARY PUBLIC
ALAMANCE COUNTY, NC
MY COMMISSION EXPIRES ON 6-19-18

My commission expires: 6-19-18